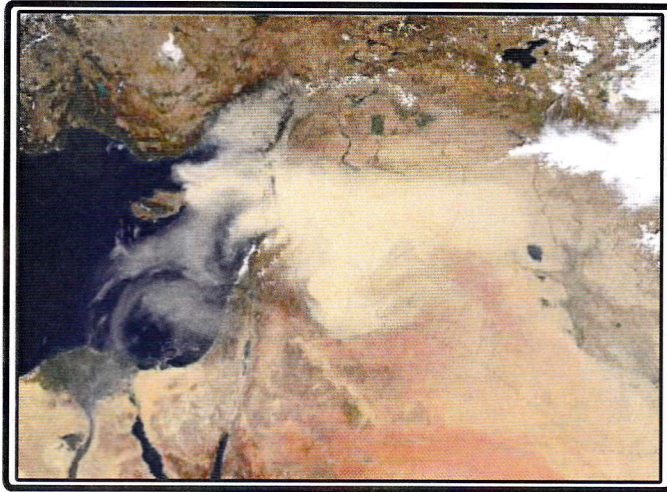
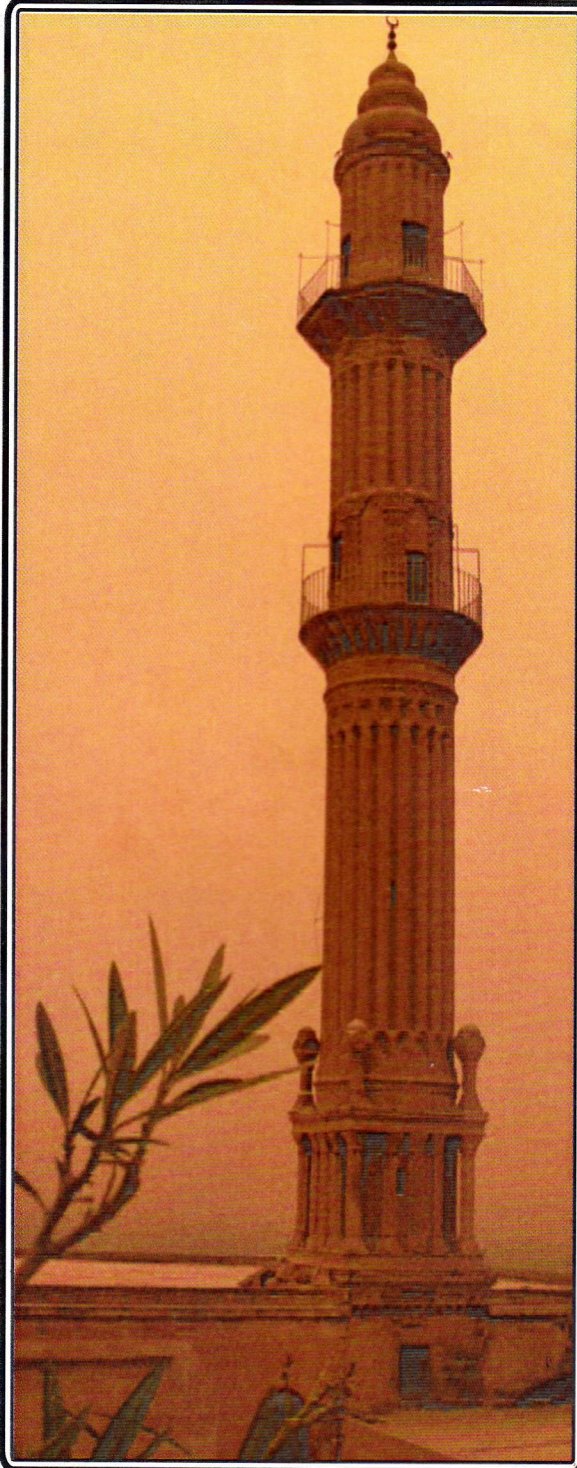




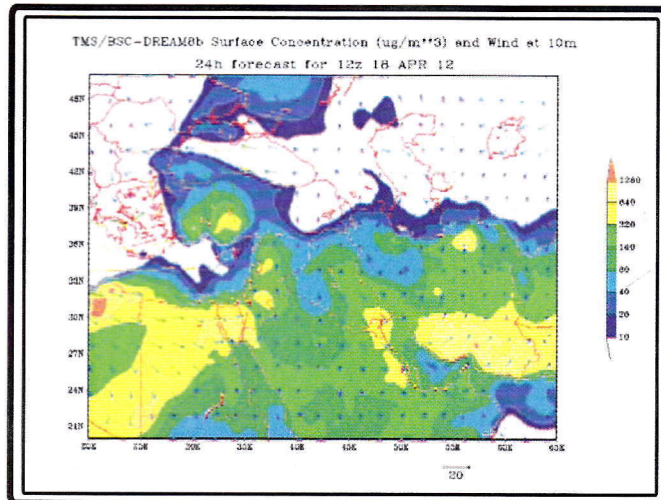
Republic of Turkey
Ministry of Forestry
and Water Affairs



Republic of Turkey
Ministry of Forestry and Water Affairs
Turkish State Meteorological Service



Sand and Dust Storm (SDS) Studies at TSMS



Sand and Dust Storms (SDS)

Dust plays a major role in several aspects of the Earth System.

Dust aerosols transported from the surrounding deserts (Sahara, Arabia, etc.) and semi-arid areas have great importance on climate, human activities, land and marine ecosystems and health.

Countries within Eastern Mediterranean region are highly affected by dust storms. Turkey is strongly effected from dust storms due to its location. Dust sources in both Africa and Middle East are the most effective regions for sand and dust storms in Turkey.

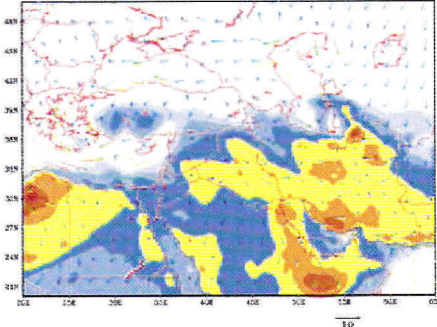


SDS Forecasts

The BSC-DREAM8b SDS model has been established at TSMS in cooperation with Barcelona Supercomputing Center (BSC) and Spanish Meteorological Service (AEMET) under the EU TAIEX Small Grants Program.

The operational forecasts by BSC-DREAM8b have been started in June 2010. 72 hours SDS forecasts covering Europe, Northern Africa, Middle East and Turkey are published at TSMS website.

TMS/BSC-DREAM8b Surface Concentration ($\mu\text{g}/\text{m}^3$) and Wind at 10m
54h forecast for 18Z 01 JUN 14





Training Activities

The training activities on Sand and Dust Storms (SDS) for the countries in the Middle East and North Africa region are very important for their capacity building. "SDS trainings/workshops" have been organized by TSMS and ÇEM for the countries in the Middle East and North Africa in the last decade.



These trainings/workshops were held with the cooperation of World Meteorological Organization (WMO), European Organization for the Exploitation of Meteorological Satellites (EUMETSAT), Spanish Meteorological Service (AEMET) and Barcelona Supercomputing Center (BSC). UNCCD and UNEP also contributed to these events.



22-26 Feb. 2011, Istanbul
21-25 Nov. 2011, Antalya
26-28 Nov. 2012, Ankara
28-31 Oct. 2013, Istanbul
04-07 Oct. 2016, Istanbul
23-27 Oct. 2017, Istanbul



Participating Countries: Kuwait, Saudi Arabia, Qatar, Bahrain, United Arab Emirates, Iran, Iraq, Syria, Palestine, Jordan, Lebanon, Yemen, Chad, Mauritania, Somali, Sudan, Ethiopia, Senegal, Burkina Faso, Egypt, Libya, Morocco, Tunisia, Algeria, Cape Verde, Afghanistan, Pakistan, Turkmenistan, Kazakhstan, Kirghizstan, Tajikistan, Uzbekistan, Spain, Serbia, Italy, China, Turkey.

www.wdcc.mgm.gov.tr

Weather, Dust and Climate Center (WDCC)

Weather, Dust and Climate Center (WDCC) was established in accordance with "Cooperation on Environment and Meteorology Action Plan" signed between Turkey, Iran, Iraq, Syria and Qatar.

Operational SDS Forecasts have been produced through this center since November 2012, published and they are available for the use of the countries in Middle East and North Africa regions.

